



Howard County Health Department

Maura J. Rossman, M.D., Health Officer

Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

RECEIPT DATE: 07/26/2019 **ON-SITE SEWAGE DISPOSAL SYSTEM**

P 55572

APPROVAL DATE: 09/20/2019 **PERMIT: CONSTRUCTION**

A _____

PROPERTY ADDRESS: 1811 WOODSTOCK ROAD, WOODSTOCK, MD 21163

SUBDIVISION: VALLEY ANNE ESTATES LOT: 2 TAX ID: 03-305376

CONTRACTOR: FARM AND HOME EXCAVATING EMAIL: _____

CONTRACTOR ADDRESS: 901 DRIVER ROAD, MARIOTTSTVILLE, MD 21104 PHONE: 410-984-0189

PROPERTY OWNER: SONSHINE MD, LP EMAIL: greinsmith@keystonecustomhomes.com

OWNER ADDRESS: 227 GRANITE RUN ROAD, SUITE 100, LANCASTER, PA 17601 PHONE: (717)719-1362

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: MAYER BROS., INC.

PUMP MODEL: ZOELLER BN151 PUMP SIZE: 0.3 PUMP TANK CAPACITY: 2000

DISTRIBUTION SYSTEM: ☒ GRAVITY ☐ PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>87</u>	INLET DEPTH: <u>2.0</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6.0</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>11</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>2.0</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	INSTALL A CLEANOUT BETWEEN THE HOUSE FOUNDATION AND THE SEPTIC TANK.	

ISSUED BY: R. BRICKER ISSUE DATE: _____ EXPIRATION DATE: _____

NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION

NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING

NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.

NOTE: WATERTIGHT TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADE FROM ANY WATER WELL

NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM

☒ ELECTRICAL PERMIT ISSUED E 19003262

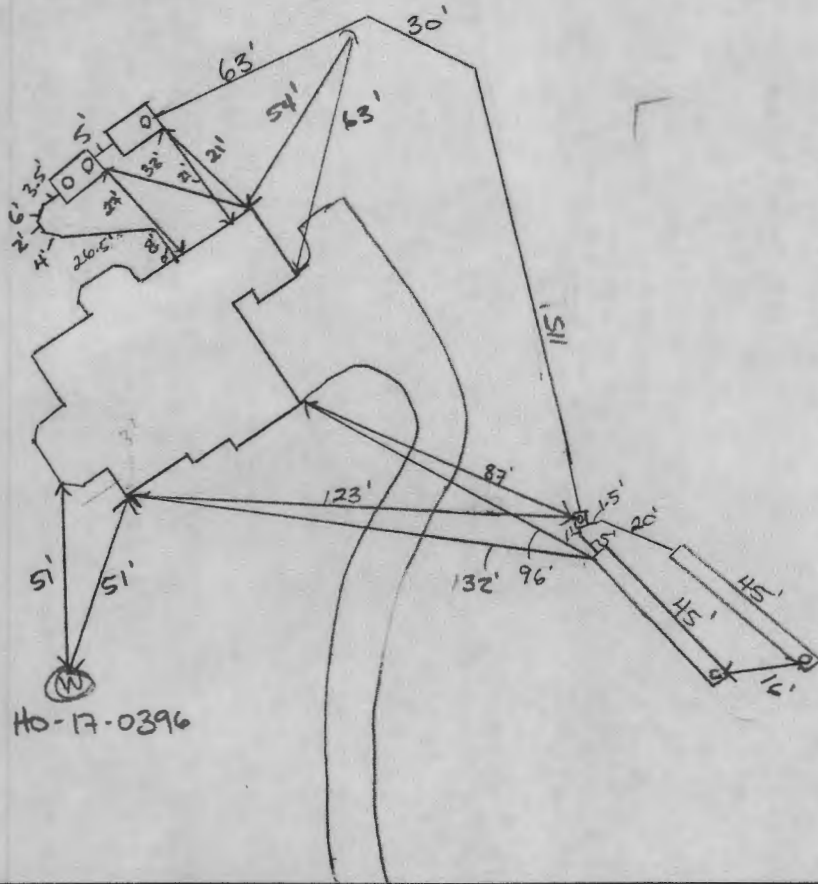
NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE



ROAD NAME
WOODSTOCK ROAD

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	6'
NUMBER OF TRENCHES		2
TOTAL LENGTH		90'
ABSORPTION AREA		270 sq + sidewalk
DISTRIBUTION BOX LEVEL		N/A
DISTRIBUTION BOX BAFFLE		
DISTRIBUTION BOX PORT		yes

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	
MANUFACTURER	BABYLOW
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	2'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT/BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	YES
DATE ON LID	06/28/2019
PUMP/SEPTIC TANK LEVEL	
MANUFACTURER	BABYLOW
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	2.5'
BAFFLES	-
BAFFLE FILTER	-
MANHOLE LOC	BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	-
DATE ON LID	07/28/2019

PRE-CONSTRUCTION:

08/02/2019 TANK AND SDA STAKED. FILL ON TOP OF TRENCH AREA. REINS? TRENCH LAYOUT. (K)

INSTALLATION:

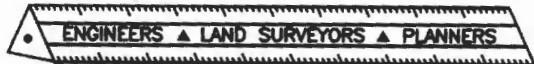
08/06/2019 SHC INSTALLED, SL AND TANKS SET. TANK DATES CONFIRMED VIA PHONE CALL. FORCE MAIN INSTALLED @ 8/23/19 Elevations shad in field & pre-wa. OK to install 2x45' trenches per plan. Some silt filling may need to be removed. (K) 8/26/2019 FORCE MAIN COMPLETE. D BOX SET. (K) (K) KNOCK OUT BAFFLE, EXTEND FM INTO BOX CENTER AND GO DOWN. Trenches complete to spec, reinspect dbox (ST) 9/20/2019 SEP ON RIGHT PANEL SIS ALARM & IS PUMP. Pump works, Flow INTO BOX IS RIGHT. (K)

FINAL INSPECTOR

DATE OF APPROVAL

09/20/2019

BENCHMARK



ENGINEERING, INC.

8480 Baltimore National Pike • Suite 315 • Ellicott City, Maryland 21043
410-465-6105 410-465-6644 (Fax)

LETTER OF TRANSMITTAL

TO: Howard Co. Health Dept
Environmental Health
Well & Septic

DATE	1-23-19	PROJECT No.	2939
ATTENTION	Robert Bricker		
RE:	1811 Woodstock Rd		
	Septic Design		

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items

- | | | | |
|---|-----------------------------------|---------------------------------------|--------------------------------------|
| <input type="checkbox"/> Photocopies | <input type="checkbox"/> Prints | <input type="checkbox"/> Originals | <input type="checkbox"/> Samples |
| <input type="checkbox"/> Specifications | <input type="checkbox"/> Invoices | <input type="checkbox"/> Change Order | <input type="checkbox"/> Other _____ |

COPIES of	No. of SHEETS	DESCRIPTION
3	3	Septic Design Plan
		House Plans

THESE ARE TRANSMITTED as checked below

- | | | |
|--|---------------------------------------|--|
| <input type="checkbox"/> For Comment | <input type="checkbox"/> For your use | <input checked="" type="checkbox"/> For Approval |
| <input checked="" type="checkbox"/> For Review | <input type="checkbox"/> As requested | <input type="checkbox"/> Other _____ |

REMARKS:

COPY TO: _____

RECEIVED BY: _____

SIGNED: _____

If enclosures are not as noted, kindly notify us at once.

WOODSTOCK ROAD

(MINOR COLLECTOR)
(60' RIGHT OF WAY)

PRESERVATION PARCEL
(BUILDABLE)
21.53 AC.
MYRTUE PROPERTY
PLAT 19982

GRID NORTH

S52°38'43"E 286.00'

195.00'

HO-17-0396

76.0'

N37°21'07"E

SEE DETAIL

20' BRL

30' ENVIRONMENTAL
SETBACK

134.9'

25' WETLAND
BUFFER

NON-TIDAL
WETLANDS

25'

LOT 2
VALLEY ANNE
ESTATES
PLAT 3881
ZONED RC-DEO
1.83 AC.

75' BRL

166.8'

R=3284.38'
L=49.67'

R=25.00'
L=39.27'

R=788.85'

L=264.53'

40' BRL

50' BRL

309.26'

S37°21'17"W

25' WETLAND BUFFER

BROWN'S FARM ROAD
(LOCAL ROAD)
(50' RIGHT OF WAY)

TOP OF FIRST FLOOR = 427.5'
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS, WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21320, EXPIRATION DATE 1-7-2021 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THAT THE DIMENSIONS OF THE BUILDING WALLS, SHOWN HEREON ARE CORRECT; THAT THEY ARE BASED ON A FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON 07/11/2019.



DONALD A. MASON
PROFESSIONAL LAND SURVEYOR
MARYLAND REG. No. 21320

FEMA FIRM No. 24027C0060D
ZONE: X
DATED: 11/6/2013

BENCHMARK

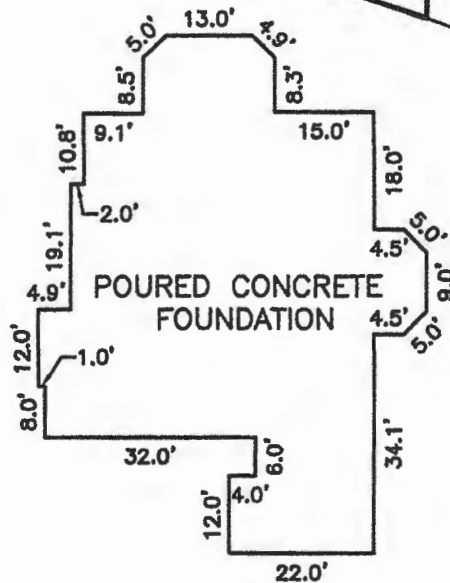
ENGINEERS & LAND SURVEYORS & PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE SUITE 315
ELLICOTT CITY, MARYLAND 21043
(P) 410-485-6105 (F) 410-485-6844

WWW.BE-ENGINEERING.COM

10-2020 Yellow Zone Detail for Flood Hazard Insurance Study 7/12/2019 11:17:13 AM WRF/CENTRAL REF/InaKunera CS 3051d KX



FOUNDATION DETAIL
SCALE: 1" = 30'

WALL CHECK

VALLEY ANNE ESTATES
SECTION TWO LOTS 1-12
PLAT No. 3881
LOT No. 2

1811 WOODSTOCK ROAD

3RD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

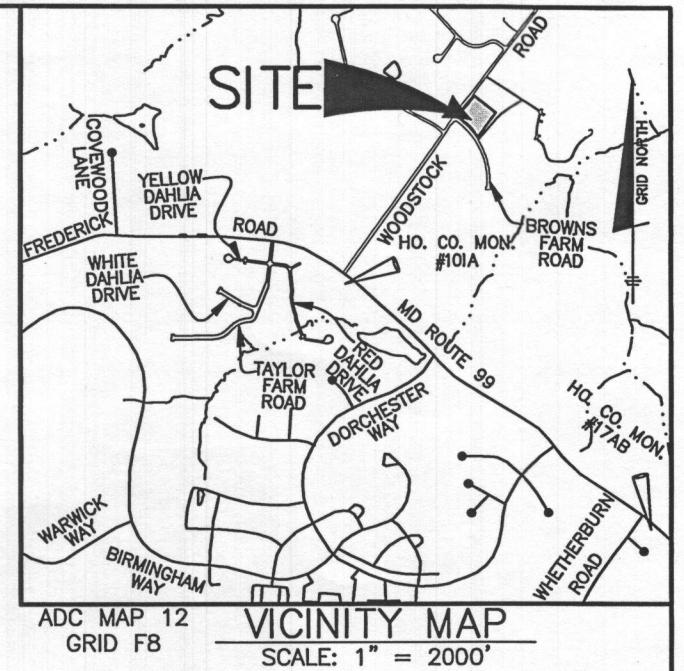
FIELD OBS. BY ML
COMP. BY EWF
DRAWN BY EWF SCALE: 1" = 50' DATE: 07/11/2019

Wall Check
OK
R/L 7/26/2019



LEGEND

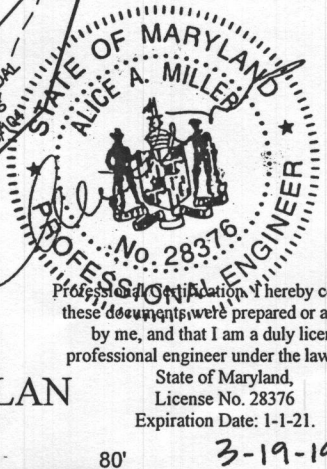
- PROJECT BOUNDARY
- EXISTING CONTOURS
- PROPOSED WELL BOX
- PROPOSED PRIVATE SEWAGE DISPOSAL AREA
- EXISTING SLOPES 15% - 25%
- EXISTING SLOPES 25% OR GREATER
- EXISTING TREELINE
- PROPOSED TREELINE
- SOILS MAP SYMBOL
- SOILS DELINEATION LINE
- PASSING PERC TEST
- AREA OF NON-TIDAL WETLAND
- PROPOSED CONTOURS
- LIMIT OF DISTURBANCE



GENERAL NOTES

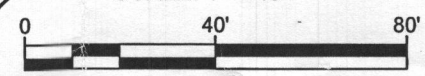
1. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
2. THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE REQUIRED.
3. TOPOGRAPHY SHOWN WITHIN THE CONSTRUCTION AREA IS BASED ON FIELD SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC., JANUARY 2019. REMAINING TOPO IS HOWARD COUNTY GIS, 2 FOOT CONTOURS. THE BOUNDARY SHOWN IS BASED ON PLATS 3881 AND 23864.
4. TO THE BEST OF OUR KNOWLEDGE, ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELL AND/OR SEPTIC HAVE BEEN SHOWN.
5. ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
6. STORMWATER MANAGEMENT FOR THIS LOT COMPLIES WITH THE "MARYLAND DEPARTMENT OF THE ENVIRONMENT STORMWATER MANAGEMENT ACT OF 2007" AND THE "HOWARD COUNTY DESIGN MANUAL VOLUME I, CHAPTER 5". STORMWATER MANAGEMENT IS PROVIDED BY NON-ROOFTOP DISCONNECTION (N-2) AND FOUR (M-5) DRY WELLS WHICH ARE PRIVATELY OWNED AND PRIVATELY MAINTAINED.
7. PROPERTY ACREAGE: ±1.83 AC., ZONED RC-DEO, PROPOSED LIMIT OF DISTURBANCE: 0.86 AC. ONSITE
8. FOREST STAND DELINEATION HAS BEEN PERFORMED BY ECO-SCIENCE PROFESSIONALS, DECEMBER 2018, AND IS PROVIDED AS PART OF THIS SIMPLIFIED ENVIRONMENTAL CONCEPT PLAN SUBMISSION. BASED ON THE REPORT, THERE IS NO REGULATED FOREST ON THE SITE, AS THE MAJORITY OF THE EXISTING GROWTH CONSISTS OF INVASIVE SPECIES. THERE ARE NO SPECIMEN TREES ON THE SITE.
9. THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION ACT REQUIREMENTS PER SECTION 16.1202 b(2)(i) SINCE NO CLEARING OF REGULATED FOREST IS PROPOSED. A DECLARATION OF INTENT WILL BE PROVIDED WITH THE BUILDING OR GRADING PERMIT APPLICATION.
10. SEDIMENT AND EROSION CONTROL PER GP-19-55.

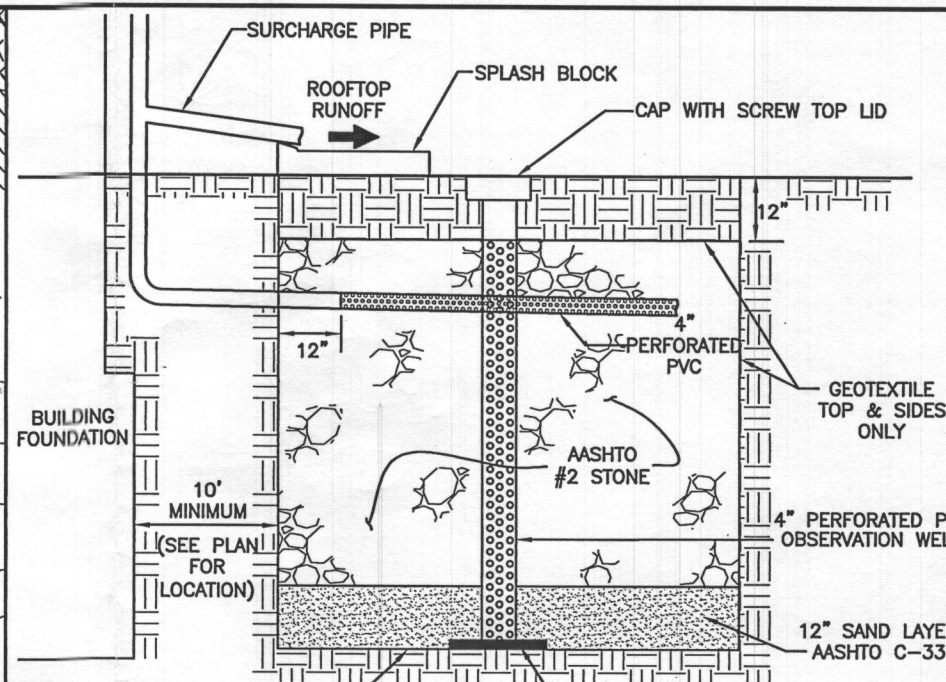
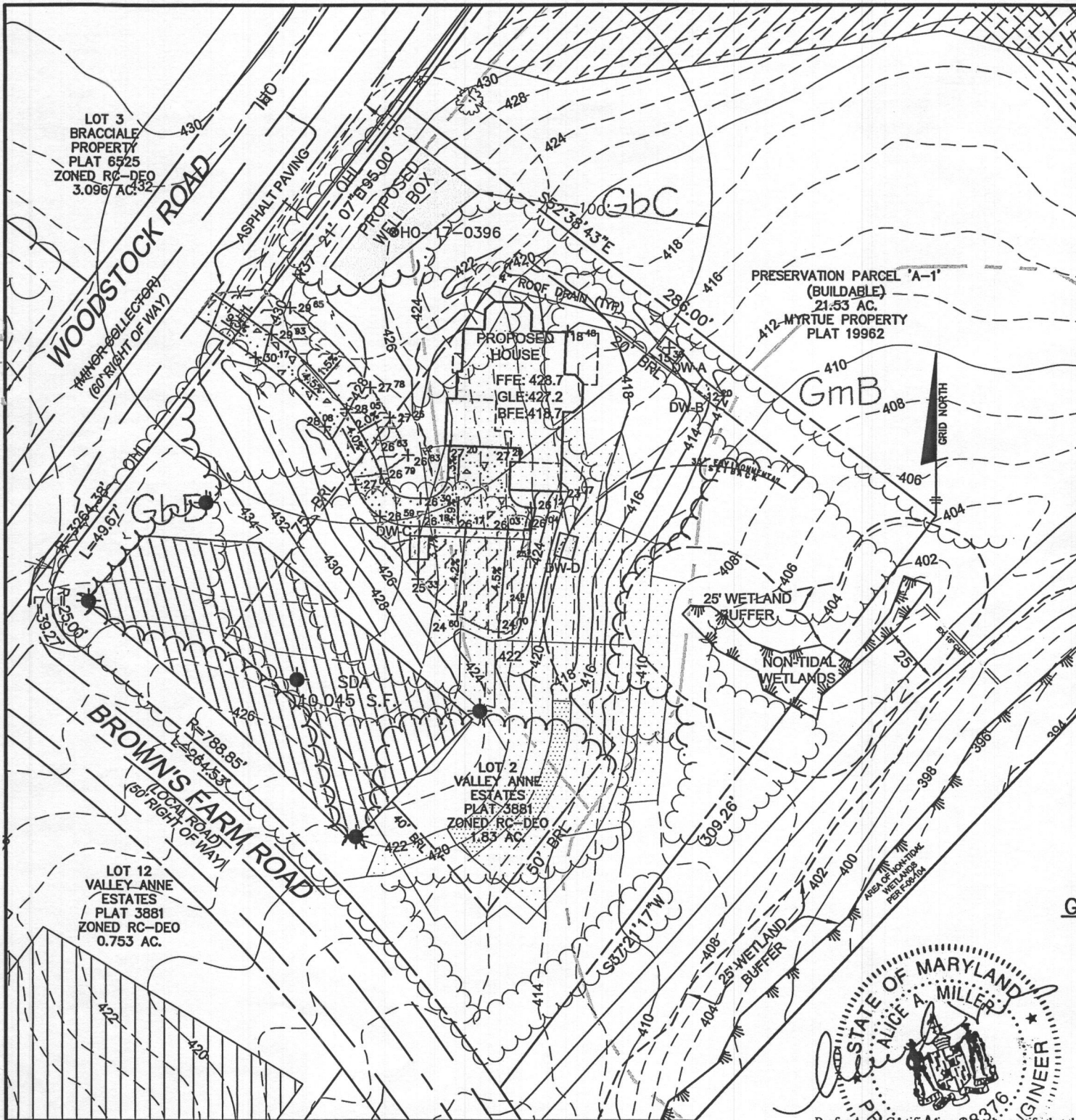
CONTRACT PURCHASER/ BUILDER:		<div>BENCHMARK</div> <div>ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS</div> <div>ENGINEERING, INC.</div> <div>8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ELLCOTT CITY, MARYLAND 21043 (P) 410-465-6105 ▲ (F) 410-465-6644 WWW.BEI-CMILENGINEERING.COM</div>	
PROJECT:		LOT 2 VALLEY ANNE ESTATES 1811 WOODSTOCK ROAD	
LOCATION:		TAX MAP 10, GRID 24 PARCEL 287 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE:		BUILDING PERMIT PLAN GRADING PLAN	
DATE:	MARCH, 2019	PROJECT NO.	2939
SCALE:	AS SHOWN	DRAWING	1 OF 2



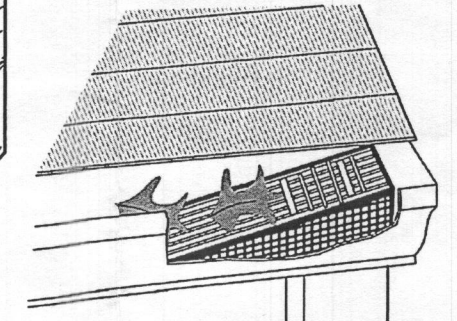
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376, Expiration Date: 1-1-21.

GRADING PLAN
SCALE: 1" = 40'





DRY WELL DETAIL
NOT TO SCALE
SEE PLAN VIEW FOR DRYWELL LOCATIONS AND SUMMARY CHART ON SHEET 1 FOR SIZES



GUTTER DRAIN FILTER (TYPICAL)

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED & MAINTAINED DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

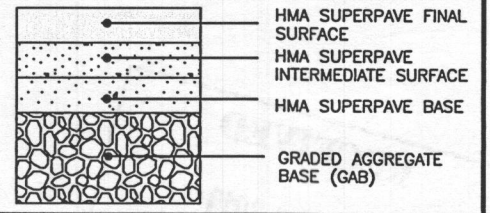
MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA.

OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED & MAINTAINED DRY WELLS (M-5)

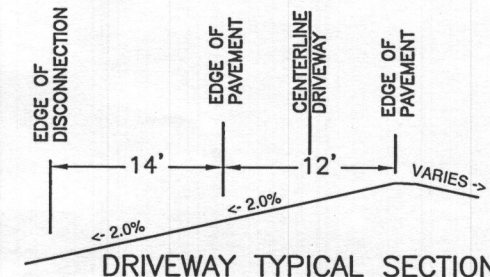
- A. THE MONITORING WELLS AND STRUCTURES SHALL BE INSPECTED ON A QUARTERLY BASIS AND AFTER EVERY LARGE STORM EVENT.
- B. THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS SHALL BE RECORDED OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
- C. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE OF INFILTRATION AT WHICH THE FACILITY DRAINS.
- D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTYTWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- F. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

SECTION NUMBER	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	≥7	3 TO <5	5 TO <7	≥7
	PAVEMENT MATERIAL (INCHES)	MIN HMA WITH GAB			HMA WITH CONSTANT GAB		
P-2	HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 64-22, LEVEL 1 (LOW ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
	HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM PG 64-22, LEVEL 1 (LOW ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
	HMA SUPERPAVE BASE 19.0 MM PG 64-22, LEVEL 1 (LOW ESAL)	2.0	2.0	2.0	3.5	2.0	2.0
	GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0

PAVING DETAILS
HOWARD COUNTY DETAIL R-2.01



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376
Expiration Date: 1-1-21.



DRIVEWAY TYPICAL SECTION
NOT TO SCALE

MATERIALS & SPECIFICATIONS FOR DRY WELLS			
MATERIAL	SPECIFICATION	SIZE	NOTES:
GEOTEXTILE (CLASS "C")		N/A	PE TYPE 1 NONWOVEN
GRAVEL	AASHTO M 43	1 1/2" TO 2 1/2"	
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID SCH.40 PVC, SDR35 OR HDPE	3/8" PERF. @ 6" O/C, 4 HOLES PER ROW; MINIMUM OF 2" OF GRAVEL OVER PIPES.
SAND	AASHTO M-6 OR ASTM-C-33	.02" TO .04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO ROCK DUST CAN BE USED FOR SAND.

STORMWATER MANAGEMENT SUMMARY TABLE											
DRIVEWAY TREATMENT		Pe: 1.0 inches									
Non-rooftop Disconnection (N-2):		Area Treated	Pe	Converted to ESDv							
		2813	1.000	234							
DRYWELL FACILITIES (M-5)					Required						
FACILITY	Drainage Area	Impervious	I (%)	Rv	ESDv (cf)	Depth	Porosity	Width	Length	Volume Stored	Pe Treated
DW-A	700	700	100%	0.950	55.4	5.0	0.40	6	10	120	2.17
DW-B	743	743	100%	0.950	58.8	5.0	0.40	6	12	144	2.45
DW-C	778	778	100%	0.950	61.6	5.0	0.40	8	10	160	2.60
DW-D	836	836	100%	0.950	66.2	5.0	0.40	8	10	160	2.42
					TOTAL:	584 cf					

CONTRACT PURCHASER/ BUILDER: SONSHINE MD, LP 227 GRANITE RUN DRIVE, SUITE 100 LANCASTER, PA 17601 717-464-9060		BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 315 ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 & (F) 410-465-6644 WWW.BE-CIVILENGINEERING.COM	
PROJECT: LOT 2 VALLEY ANNE ESTATES 1811 WOODSTOCK ROAD		LOCATION: TAX MAP 10, GRID 24 PARCEL 287 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: BUILDING PERMIT PLAN STORMWATER MANAGEMENT PLAN		DATE: MARCH, 2019 PROJECT NO. 2939	
SCALE: AS SHOWN		DRAWING 2 OF 2	